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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,684	10/17/2003	Seung Hyun Yi	2080-3-187	2609

7590 05/06/2005
Jonathan Y. Kang, Esq.
Lee & Hong P.C.
14th Floor
801 South Figueroa Street
Los Angeles, CA 90017

EXAMINER


NGUYEN, HAI L

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/688,684	Applicant(s) YI, SEUNG HYUN 	
	Examiner Hai L. Nguyen	Art Unit 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it is not in a single paragraph.

Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claims 1 and 2 are objected to because of the following informalities:

Claim 1, in lines 7-8, "an output clock signal" should be changed to --the clock signal--;

Claim 2, in lines 2-3, "an output clock signal" should be changed to --the clock signal--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 1 recites the limitation "the phase control signal" in lines 4-5. There is insufficient antecedent basis for this limitation in the claim. Claims 2-11 are rejected due to their dependencies on claim 1.

6. Claim 3 is indefinite because the limitation "the phase comparator comprises: a shift register ..." is unclear. It is unclear because there is no such detailed structure of the phase

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comparator as recited above in the specification. However, the phase control signal generator (as shown in Fig. 2) matches those recited structural limitations. Clear clarification is required.

7. Claims 2-11 are rejected due to their dependencies on the base claims 1 and 3.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Wu et al. (US 6,100,736).

With regard to claim 1, Wu et al. discloses in Figs. 1-5A a circuit for generating a clock signal, comprising a phase comparator (110) for detecting a difference between a predetermined input clock signal (CLKSRC) and feedback of an output clock signal (CLKCMP), and generating a shift control signal (U,D); a phase control signal generator (130) for receiving the input clock signal and generating the phase control signal according to the shift control signal using a predetermined clock generating reference signal; a clock signal generator (140) for receiving the phase control signal and generating the output clock signal (CLKX2) having a frequency corresponding to a plurality times (2) the frequency of the input clock signal.

With regard to claim 2, the phase comparator outputs a shift control signal commanding a left shift when the phase of the output clock signal is faster than that of the input clock signal and outputs a shift control signal commanding a right shift when the phase of the output signal is

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slower than the that of the input clock signal (see column 2, lines 56-65 and column 4, line 66 through column 5, line 60).

Allowable Subject Matter

10. Claims 7-11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The prior art of record fails to disclose or fairly suggest a clock signal generator (as shown in Fig. 3) having specific structural limitations such as a plurality of correction delay (310, 320, 330) for delaying the phase control signal (out_90, out_180, out_270, out_360) for a time period according to the predetermined set time; a pulse signal generator (340 - 370) for generating a predetermined pulse signal according to the delayed phase control signal; a clock signal outputting part (380) for outputting output the output clock signal according to the pulse signal, and being configured in combination with the rest of the limitations of the base claims and any intervening claims.

Conclusion

11. Regarding claims 3-6, the patentability thereof cannot be determined because of their indefiniteness.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lee (US 6,483,359) is cited as of interest because it discloses a delay locked loop for use in semiconductor memory device.


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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai L. Nguyen whose telephone number is 571-272-1747 and Right Fax number is 571-273-1747. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The official fax phone number for the organization where this application or proceeding is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1562.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HLN 
April 19, 2005


TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800